# NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

# GRASSED WATERWAY

(Acre)

412

### 1. SCOPE

The work shall consist of excavating, filling, shaping and seeding, as necessary for the construction of the waterway to the cross-section, lines and grades as shown on the drawings or as staked in the field.

## 2. SITE PREPARATION

The construction area shall be cleared of all obstructions, trees, stumps, roots, brush, rock fragment over 4 inches, boulders, debris, and other unsuitable material. Vertical banks shall be cut to a 1 to 1 or flatter slope prior to the placement of fill.

## 3. EXCAVATION

The waterway shall be excavated to the cross-section, lines and grades as shown on the drawings or as staked in the field. Any topsoil excavated to shape the channel shall be stockpiled until needed for spreading over areas that will be vegetated. To the extent needed, all suitable excavated material shall be used in the construction of earth fills. Surplus and unsuitable materials will be disposed of at locations shown on the drawings or approved by the owner.

# 4. EARTH FILL

The earth fill shall be placed to the cross-section, lines and grades as shown on the drawings or as staked in the field. All fill material shall be obtained from the required excavation and designated borrow areas. The fill material shall be free from frozen particles, brush, roots, sod, rock fragments over 4 inches, or other objectionable materials. Earth fill shall be placed in approximately uniform horizontal layers of not more than 9 inches before compaction. The soil used for earth fill shall contain sufficient moisture such that when a sample is taken and squeezed in the hand, it will remain intact when released. Compaction shall be accomplished by routing of the hauling and spreading equipment over the fill area. The entire surface of each layer or lift will be traversed by not less than one tread or wheel track of the equipment.

Unless otherwise specified, suitable topsoil will be spread over areas to be vegetated to a minimum depth of 3 inches. The topsoil shall be finished to a reasonably smooth surface.

### 5. VEGETATION

During and/or immediately following construction, the waterway shall be prepared, fertilized, seeded, and mulched in accordance with Conservation Practice Standard Code 342, Critical Area Planting, and/or vegetative requirements as specified on the drawings.

# 6. CONSTRUCTION OPERATIONS

Construction operations shall be done in such a manner that erosion and air and water pollution are minimized and held within legal limits.

Care shall be taken to avoid excessive compaction of areas to be vegetated by unnecessary travel of the construction equipment.

The owner, operator, contractor, and other persons shall conduct all work and operations in accordance with proper safety codes. The completed job shall be workmanlike and present a good appearance.

# 7. OPERATION AND MAINTENANCE

Maintain vigorous growth of desirable vegetative coverings.

Occasional mowing or grazing may be necessary to maintain desirable vegetation. It should be timed to avoid the upland game bird nesting season generally during the springtime.

Control rodents and burrowing animal.

Repair any damage from storm events, rodents, vandalism, vehicles, and livestock.

Remove all debris that hinders system operation.

Limit any vehicle traffic in waterway and do not use as a roadway.